UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/724,842	11/28/2000	Robert Chalifour	14445-501	6146

7590 10/16/2003

KAREN L ELBING Ph.D.
CLARK & ELBING LLP
101 FEDERAL STREET
BOSTON, MA 02110

EXAMINER	
TURNER, SHARON L	

ART UNIT	PAPER NUMBER
1647	26

DATE MAILED: 10/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/724,842	CHALIFOUR ET AL.	
	Examiner	Art Unit	
	Sharon L. Turner	1647	

-- The MAILING DATE of this communication app ars on the cov r sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 July 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *46-56,58-64 and 66-109* is/are pending in the application.

4a) Of the above claim(s) *49,50,52-55,58-60,62-64,67 and 69-103* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *46-48,51,56,61,66,68 and 104-109* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *46-56,58-64 and 66-109* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 July 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *see previous PTO-948* .

Response to Amendment

1. The amendment, oath, declaration and formal drawings filed 7-7-03 have been entered into the record and have been fully considered.

2. The text of Title 35 of the U.S. Code not reiterated herein can be found in the previous office action.

3. As a result of applicants amendment, all rejections not reiterated herein have been withdrawn by the examiner.

4. As set forth in the Action of 1-2-03, "The preliminary amendment filed 9-17-01 has been entered and has been fully considered. It is noted that the following entry as directed appears to be in error. Applicants appear to have inadvertently directed entry to p. 10, line 30-p. 13, line 10 where entry should have been directed to p. 10, line 24-p. 12, line 25. The entry cancels text. The amendments filed 4-15-02, 6-21-02 and 10-4-02 have been entered and have been fully considered."

Applicant's agree and request the appropriate change be made. However, the Examiner is unable to effect the change by request. Applicants are required to correct the discrepancy by amendment to the application.

5. Claims 46-56, 58-64 and 66-109 are pending.

Election/Restriction

6. Applicant's election with traverse of Group I, claims 46-69, 93-98 and new claims 104-109 to the extent of methods of treating or preventing by administration with a peptide of SEQ ID NO:27, wherein R' is N-terminal hydrogen and R" is C-terminal unsubstituted amino group, in Paper No. 17(4-15-02) is acknowledged. The traversal is

on the ground(s) that the claims as amended have withdrawn the Markush group of different amyloid proteins, that the claims are drawn to all D-amyloid beta peptides, that restriction is proper only if the inventions are independent and distinct and that the peptides are members of the same superfamily of peptides that induce an immune response to at least one region of the beta amyloid peptide. Applicants submit that all claims of the elected group read on the elected invention.

This is not found persuasive. Although the claims have been amended to narrow the scope to beta amyloid peptides, the claims remain drawn to peptides that differ in primary structures (sequence) as recited in the claims and as evidenced by their different sequence identifiers. The peptides lack common structure and accordingly are capable of different uses, effects and functions. A search for any single sequence would not reveal all relevant art to any other sequence. Further, a reference against any particular peptide would not necessarily be a reference to any other with respect to 35 USC 102 or 103. Therefore the peptides are not proper species and lack unity of invention in accordance with MPEP 803.02 as they lack common structure. Moreover, it is noted that the inventions need only be independent or distinct in accordance with MPEP 803, see also discussions of the terms in MPEP 802.01-02. Nevertheless, the separately defined peptides are both independent and distinct as set forth. Applicant's assert that all claims of the elected group (claims 46-69, 93-98 and 104-109) read on the elected invention and species. However, the claims are limited to the extent of the elected peptide of SEQ ID NO:27 and wherein substituents of R' (N-terminal) is hydrogen and R"(C-terminal) is unsubstituted amino group. Thus, claims 49-50, 52-55,

58-60, 62-64, 67, 69, and 93-98 are withdrawn as being drawn to non-elected groups and species. As to claim 50 and 59-60, the elected species is not of an acid or base functional group, salt or ester form. The Examiner does not recognize such with respect to a peptide with N-terminal hydrogen or C-terminal unsubstituted amino. Thus, the claims recite non-elected species substituents. As to claims 52-55, 62-64 and 69, the recitations recite amino acid sequences other than elected SEQ ID NO:27. As to claims 49 and 58, the elected substituents are not of alkyl or aromatic groups. As to claim 67, the recitation is to the non-elected disease of cerebral amyloid angiopathy. As to claims 93-98, the examiner cannot discern whether or not SEQ ID NO: 27 is a peptide that interacts with at least one region of an IAPP peptide because the claim fails to delineate that which is IAPP or that SEQ ID NO:27 is capable of binding it. The literature appears to designate islet amyloid pancreatic protein as IAPP but the examiner cannot find any reference to SEQ ID NO:27 binding it. Thus, the claim is deemed to be non-elected absent clarification of what IAPP is intended to represent and evidence that SEQ ID NO:27 interacts with it.

The requirement is still deemed proper and is therefore made FINAL.

7. Claims 49-50, 52-55, 58-60, 62-64, 67, 69-103 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention and species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 17.

8. This application contains claims 49-50, 52-55, 58-60, 62-64, 67, 69-103 drawn to an invention nonelected with traverse in Paper No. 17. A complete reply to the final

rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

9. Claims 46-48, 51, 56, 61, 66, 68 and 104-109 are under examination.

Drawings

10. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 10-4-02 have been approved. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance. Applicants should additionally note the corrections required by the draftsman as noted in the PTO-948 attached herewith.

Applicant's note in the response of 7-7-02 that new formal drawings were submitted including all of the changes required by the Office.

Applicant's response is noted. However, the Examiner finds no changes in the drawings from those previously submitted and objected to by the draftsman. The Examiner's previous objection as to sequence identifiers has been rectified by amendment of the specification. If Applicant wishes the changes to be incorporated in the drawings new drawings reflecting the proposed corrections is required.

Double Patenting

11. The Examiner notes the application of 09/867,847 filed by the same Applicant's as instant application. However, the examiner has been unable to obtain access to the case for the evaluation of potential double patenting issues. In a telephone inquiry with Applicant's representative, the Examiner was notified that the application is not being

handled by the same firm/representative as instant case and thus Applicant's representative was also unable to provide a copy of the pending claims in the co-pending case or to speak to the subject matter claimed therein. It is noted by the Examiner that the co-pending case shares the same title as instant case and thus that the subject matter is presumed to overlap. As the claims in the co-pending case are unavailable at this time, the issue is deferred until the next office action on the merits during which time the Examiner should be able to obtain the co-pending case. No double patenting rejection is set forth herein. However, Applicant's representative is hereby informed of this outstanding issue and of the basis for statutory and nonstatutory double patenting rejections. Applicants should attempt to review the co-pending application so as to avoid such issues.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 46-48, 51, 56, 61, 66, 68 and 104-109 are provisionally rejected under the judicially created doctrine of double patenting over claims 1-39 of copending Application

No. 09/867847. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: While the claims in the '847 and instant case differ slightly the claim structure is essentially identical in that each is directed to methods of preventing and treating amyloid disease with the same peptides composed of all D amino acids. Thus, instant claims to the same methods of treatment in slightly different terms completely encompasses the same subject matter and any patent issuing therefrom would serve to anticipate instant claims to the same methods of treatment.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Objections

13. Claims 46-48, 51, 56, 61, 66, 68 and 104-109 are objected to as reciting an improper Markush Group. M.P.E.P. 803.02 states that:

> Since the decisions in In re Weber, 198 USPQ 328 (CCPA 1978); and In re Haas, 198 USPQ 334 (CCPA 1978), it is improper for the Office to refuse to examine that which applicants regard as their invention, unless the subject matter in a claim lacks unity of invention, In re Harnish , 631 F.2d 716, 206 USPQ 300 (CCPA 1980); Ex Parte Hozumi , 3 USPQ2d 1059 (Bd. Pat. App. & Int. 1984). Broadly, unity of invention

exists where compounds included within a Markush group (1) share a common utility and (2) share a substantial structural feature disclosed as being essential to that utility.

In instant case the encompassed peptides differ substantially in structure and are capable of different use, with different modes of operation, different function and different effects and therefore lack unity of invention. Applicants should note that the generic claim has been examined to the extent of the elected invention.

Applicants argue in the response of 7-7-02 that the only claims that present Markush groups are 47-48, 51, 56 and 61 and thus the objection should not be directed to claims 46, 66, 68 and 104-109. Applicants argue that the different peptides are all related to beta amyloid and share similar utility in that they evoke similar immune responses. Applicants further argue that the substituents are not so numerous or pertinent to examination so as to preclude their inclusion in totality.

Applicant's arguments filed 7-7-02 have been fully considered but are not persuasive. Applicant's claims are directed to Markush groups of multiple members and to immunogenic fragments or structures that differ. Unity of invention is lacking where such differences are shown. The search to any one element is not shared nor would the art necessarily apply to each member. The objection to the claims is proper where unity of invention is lacking. Applicants should note that the generic claim has been examined to the extent of the elected invention.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

15. Claims 46-48, 51, 56, 61, 66, 68 and 104-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over, Schenk et al., WO Publication No. WO 99/27944 published 10 June 1999, Alberts, 2nd Ed., Molecular Biology of the Cell, Garland Publishing, 1989, pp. 54, Tjernberg et al. (a), J. Biol. Chem 271(15):8545-8, April 12, 1996, Tjernberg et al. (b), J. of Biol. Chem 272(19):12601-65, May 9,1997, Soto et al., Biochem. & Biophys. Res. Comm., 226:672-680, 1996, Findeis et al.(a), 5,854204, filed March 14, 1996, issued Dec. 29, 1998 and Findeis et al.(b), 5,985,242, filed August 27, 1997, issued Nov. 16, 1999, Gross et al., US 5,002,872, issued March 26, 1991 and Isowa et al., US 4,116768, issued Sept. 26, 1978.

Schenk et al., teach β-amyloid peptides, and fragments thereof effective to evoke an immune response within the host against an amyloid plaque and which

administration is effective to reduce amyloid plaque burden in brains exhibiting Alzheimer's type pathology, see in particular pp. 13-15 and 51-53. Schenk also teaches a method of preventing or treating a disease characterized by amyloid deposits in a patient comprising administering an agent effective to induce an immune response against a peptide component of an amyloid deposit in the patient, wherein the amyloid deposit comprises aggregated Aβ peptide, and wherein the immunizing peptide or agent is Aβ peptide, see in particular claims 8-23. Schenk additionally teaches that the immunogenic peptides can be expressed as fusion proteins with carriers, linked at the amino or carboxy terminus or may be modified or unnatural amino acids, see in particular p. 14-16 and 20, lines 33-37. The beta-amyloid peptides of Schenk comprise the peptide of SEQ ID NO:27 with N' terminal hydrogen (the natural formation of N' terminal amino acids), see in particular Alberts, pp. 54 exhibiting N'terminal hydrogen bonds. The treatment of a patient via Schenk is understood to include humans or other mammalian subjects, see in particular pp. 12, lines 25-27.

However, Schenk does not teach the peptide consisting of SEQ ID NO:27 which is all D with C' terminal un-substituted amino.

Tjernberg et al., teach the amino acids consisting of SEQ ID NO:27 useful for the inhibition of amyloid fibril formation and suggest its use as a peptide agent aimed at inhibiting beta amyloid amyloidogenesis in vivo, see in particular Tjernberg et al. (a), Abstract, Figure 2, Results and Discussion and Tjernberg et al. (b), Abstract, Figure 1, Results and Discussion. Tjernberg et al. (b), teaches D-amino acid peptides effective for binding and inhibiting beta-amyloid fibril formation and note their advantage of

protease-resistance and suitability for use as agents for the inhibition of amyloid fibril formation in vivo, see in particular Abstract, Results and Discussion.

However, Tjernberg does not teach the peptide of SEQ ID NO:27 which is all D with C' terminal unsubstituted amino.

Findeis et al., (a) and (b) are largely cumulative. Both references teach modulators of beta amyloid aggregation including for inhibition of beta-amyloid aggregation in vivo and inhibition of amyloid related diseases such as Alzheimer's Disease, see in particular Summary of the Invention. Findeis et al., teach treatment of subjects with disorders associated with β-amyloidosis, particularly patients with Alzheimer's disease. The peptides may be all or partial D-amino acids as particularly directed in the '242 patent, see in particular Summary of the Invention and may also include modified groups at N' and C' termini, see in particular Tables I-VI. The amyloid peptides also include partial β-amyloid peptide sequences as disclosed in Tables I-VI and sequence listing of β-amyloid peptides, column 64 and paper copy columns 65-84. The peptide administration intrinsically induces an antigenic response as evidenced by Schenk above, absent factual evidence to the contrary.

Findeis et al. (a) and (b) fail to teach wherein the functional group at the C'terminus is unsubstituted amino.

Soto et al., further recognize the use of D-amino acids as inhibiting to beta amyloid aggregation and to provide the advantage of resistance to catabolism in the host for such pharmaceuticals, see in particular pp. 677-678, paragraph spanning.

US 5,002,872 and US 4,116,768 teach the recognition of the art of

pharmaceutical preparation of C' terminal modified unsubstituted amino groups as protective groups for stabilization of the peptide compounds in vivo.

Thus, the artisan recognizes the treatment of Alzheimer's disease via administration of immunogenic doses of beta amyloid peptides in vivo, and further recognizes the additionally advantageous properties of SEQ ID NO:27, not only for the induction of such a response as recognized by Schenk, but also for the additional properties of inhibiting amyloid fibril formation in vitro and it's suggested use in vivo for inhibiting amyloid plaque formation. Moreover the artisan recognizes amino terminal group hydrogen on naturally occurring peptides and C' terminal unsubstituted amino protective groups to stabilize such pharmaceuticals in vivo. Thus, the artisan understanding these principles would be motivated to produce the anti-amyloidogenic peptide of SEQ ID NO:27 in all D-amino acid conformation and with C' terminal protective group unsubstituted amino to provide treatment of Alzheimer's disease as recognized in the art via both it's immunogenic and anti-fibrillogenic properties. One of skill in the art would be specifically motivated to produce the peptide in D-amino acid conformation and with C' terminal protective groups based upon the art recognized teachings of greater stability of such molecules in vivo while retaining both anti-fibrillogenic and immunostimulatory properties. Such modification would be met with an expectation of success by the artisan based upon the conservation of immunogenic and anti-fibrillogenic properties within the host while providing the advantages of a compound resistant to catabolism and decreased half-life. Thus, the cumulative reference teachings render the claimed invention obvious to the artisan at the time of

filing.

Applicants argue in the response of 7-7-03 that the only reference to mention the peptide administration for vaccine antigens is Schenk, that the other references fails to provide motivation for the use of D-amino acids in vaccines and that Applicant's declaration under 37 CFR 1.132 provides sufficient evidence of superior and unobviousness (unexpected results) using the claimed invention.

Applicant's arguments have been fully considered but are not persuasive. In contrast to Applicant's analysis each of Schenk, Tjernberg, Findeis and Soto provide teachings as to administration in vivo. It is well established that the rationale in a reference need not be the same, the rationale to modify or combine the prior art does not have to be expressly stated in the prior art; the rationale may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). See also In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (setting forth test for implicit teachings); In re Eli Lilly & Co., 902 F.2d 943, 14 USPQ2d 1741 (Fed. Cir. 1990) (discussion of reliance on legal precedent); In re Nilssen, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988) (references do not have to explicitly suggest combining teachings); Ex parte Clapp, 227 USPQ 972 (Bd. Pat. App. & Inter. 1985) (examiner must present convincing line of reasoning supporting rejection); and Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993)

(reliance on logic and sound scientific reasoning).

Here Applicant's arguments point out only that the references appear to differ in their proposed "mechanism" of action. However, the expectation of some advantage is the strongest rationale for combining references. As in MPEP 2144, The strongest rationale for combining references is a recognition, expressly or impliedly in the prior art or drawn from a convincing line of reasoning based on established scientific principles or legal precedent, that some advantage or expected beneficial result would have been produced by their combination. In re Sernaker, 702 F.2d 989, 994-95, 217 USPQ 1, 5-6 (Fed. Cir. 1983)

In instant case the Tjernberg reference notes the advantage of D-amino acids in stability and as being protease resistant and the Findeis reference notes the use of beta amyloid peptides comprised of D-amino acids in in vivo treatments for Alzheimer's. In re Dillon, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1990), cert. denied, 500 U.S. 904 (1991), held that "prima facie case of obviousness of chemical composition is established if there is structural similarity between claimed and prior art subject matter, provided a combination of references or otherwise, and if prior art gives reason or motivation to make claimed composition." The court held "it is not necessary in order to establish a prima facie case of obviousness . . . that there be a suggestion or expectation from the prior art that the claimed [invention] will have the same or a similar utility as one newly discovered by applicant," and concluded that here a prima facie case was established because "[t]he art provided the motivation to make the claimed compositions in the expectation that they would have similar properties." 919 F.2d at

693, 16 USPQ2d at 1901 (emphasis in original).

As to Applicant's position that their newly discovered properties arise from immunity, See MPEP § 2145, Prima Facie Obviousness Is Not Rebutted by Merely Recognizing Additional Advantages or Latent Properties Present in the Prior Art. The properties of the D-amino acids in effecting superior antibody responses is essentially intrinsic to the art motivated treatment.

Status of Claims

16. No claims are allowed.

Conclusion

17. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

18. Any inquiry of a general nature or relating to the status of this general application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Papers relating to this application may be submitted to Technology Center 1600, Group 1640 by facsimile transmission. The faxing of such papers must conform with

the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). Should applicant wish to FAX a response, the current FAX number for Group 1600 is (703) 308-4242.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon L. Turner, Ph.D. whose telephone number is (703) 308-0056. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Kunz can be reached at (703) 308-4623.

Sharon L. Turner, Ph.D.
October 8, 2003

GARY KUNZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600